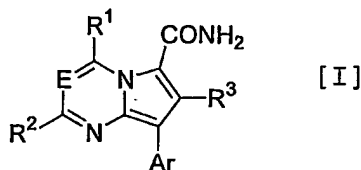


## CLAIMS

1. A pyrrolopyrimidine or pyrrolotriazine derivative substituted with a carbamoyl group represented by the following formula [I]:



(wherein E is N or CR<sup>10</sup>;

R<sup>1</sup> is -OR<sup>4</sup>, -S(O)<sub>l</sub>R<sup>4</sup> or -NR<sup>4</sup>R<sup>5</sup>;

R<sup>2</sup> is hydrogen, C<sub>1-6</sub>alkyl, C<sub>3-7</sub>cycloalkyl, C<sub>3-7</sub>cycloalkyl-C<sub>1-6</sub>alkyl, halogen, C<sub>1-6</sub>alkoxy, C<sub>3-7</sub>cycloalkyloxy, C<sub>1-6</sub>alkylthio or -N(R<sup>6</sup>)R<sup>7</sup>;

R<sup>3</sup> is hydrogen, C<sub>1-6</sub>alkyl, C<sub>3-7</sub>cycloalkyl, C<sub>3-7</sub>cycloalkyl-C<sub>1-6</sub>alkyl or aryl;

R<sup>4</sup> and R<sup>5</sup> are the same or different, and independently hydrogen, C<sub>1-9</sub>alkyl, C<sub>3-7</sub>cycloalkyl, C<sub>3-7</sub>cycloalkyl-C<sub>1-6</sub>alkyl, di(C<sub>3-7</sub>cycloalkyl)-C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy-C<sub>1-6</sub>alkyl, di(C<sub>1-6</sub>alkoxy)-C<sub>1-6</sub>alkyl, hydroxy-C<sub>1-6</sub>alkyl, cyano-C<sub>1-6</sub>alkyl, carbamoyl-C<sub>1-6</sub>alkyl or di(C<sub>1-6</sub>alkyl)amino-C<sub>2-6</sub>alkyl; or R<sup>4</sup> and R<sup>5</sup> are taken together to form - (CH<sub>2</sub>)<sub>m</sub>-A-(CH<sub>2</sub>)<sub>n</sub>- wherein A is methylene, oxygen, sulfur, NR<sup>8</sup> or CHR<sup>9</sup>;

R<sup>6</sup> and R<sup>7</sup> are the same or different, and independently hydrogen or C<sub>1-6</sub>alkyl;

R<sup>8</sup> is hydrogen, C<sub>1-6</sub>alkyl, C<sub>3-7</sub>cycloalkyl, aryl or aryl-C<sub>1-6</sub>alkyl;

R<sup>9</sup> is hydrogen, hydroxy, hydroxy-C<sub>1-6</sub>alkyl, cyano or cyano-C<sub>1-6</sub>alkyl;

R<sup>10</sup> is hydrogen, halogen or C<sub>1-6</sub>alkyl;

l is an interger selected from 0, 1 and 2;

m is an integer selected from 1, 2, 3 and 4;

n is an integer selected from 0, 1, 2 and 3;

with the proviso, when A is oxygen, sulfur or NR<sup>8</sup>, then n is 1, 2 or 3;

Ar is aryl or heteroaryl which aryl or heteroaryl is unsubstituted or substituted with 1 or more substituents, which are the same or different, selected from the group consisting of halogen, C<sub>1-6</sub>alkyl, C<sub>3-7</sub>cycloalkyl, C<sub>2-6</sub>alkenyl, C<sub>2-6</sub>alkynyl, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>alkylthio, C<sub>1-6</sub>alkylsulfinyl, C<sub>1-6</sub>alkylsulfonyl, cyano, nitro, hydroxy, -CO<sub>2</sub>R<sup>11</sup>, -C(=O)R<sup>12</sup>, -CONR<sup>13</sup>R<sup>14</sup>, -OC(=O)R<sup>15</sup>, -NR<sup>16</sup>CO<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>l</sub>NR<sup>18</sup>R<sup>19</sup>, trifluoromethyl, trifluoromethoxy, difluoromethoxy, fluoromethoxy

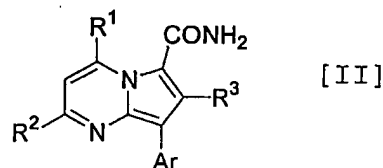
and  $-N(R^{20})R^{21}$ ;

$R^{11}$  and  $R^{17}$  are the same or different, and independently are hydrogen,  $C_{1-5}$ alkyl,  $C_{3-8}$ cycloalkyl,  $C_{3-8}$ cycloalkyl- $C_{1-5}$ alkyl, aryl or aryl- $C_{1-5}$ alkyl;

$R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$  and  $R^{21}$  are the same or different, and independently are hydrogen,  $C_{1-5}$ alkyl or  $C_{3-8}$ cycloalkyl;

$r$  is 1 or 2), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

2. The pyrrolopyrimidine derivative substituted with a carbamoyl group according to claim 1 represented by the following formula [II]:



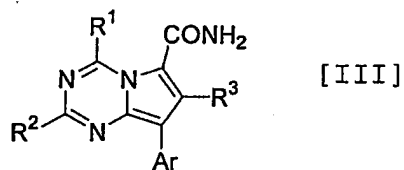
(wherein  $R^1$ ,  $R^2$ ,  $R^3$  and Ar are as defined in claim 1), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

3. The pyrrolopyrimidine derivative substituted with a carbamoyl group according to claim 2 represented by the formula [II], wherein  $R^1$  is  $-OR^4$  or  $-NR^4R^5$ ;  $R^2$  is  $C_{1-6}$ alkyl;  $R^3$  is hydrogen or  $C_{1-6}$ alkyl;  $R^4$  and  $R^5$  are the same or different, and independently hydrogen,  $C_{1-9}$ alkyl,  $C_{3-7}$ cycloalkyl,  $C_{3-7}$ cycloalkyl- $C_{1-6}$ alkyl, di( $C_{3-7}$ cycloalkyl)- $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy- $C_{1-6}$ alkyl, di( $C_{1-6}$ alkoxy)- $C_{1-6}$ alkyl, hydroxy- $C_{1-6}$ alkyl or cyano- $C_{1-6}$ alkyl; Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy,  $C_{1-3}$ alkylthio, trifluoromethyl, trifluoromethoxy and  $-N(R^{20})R^{21}$  (wherein  $R^{20}$  and  $R^{21}$  are the same or different, and independently are hydrogen or  $C_{1-3}$ alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

4. The pyrrolopyrimidine derivative substituted with a carbamoyl group

according to claim 2 represented by the formula [II], wherein  $R^1$  is  $-OR^4$  or  $-NR^4R^5$ ;  $R^2$  is  $C_{1-6}$ alkyl;  $R^3$  is hydrogen or  $C_{1-6}$ alkyl;  $R^4$  is  $C_{1-9}$ alkyl,  $C_{3-7}$ cycloalkyl,  $C_{3-7}$ cycloalkyl- $C_{1-6}$ alkyl,  $di(C_{3-7}$ cycloalkyl)- $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy- $C_{1-6}$ alkyl,  $di(C_{1-6}$ alkoxy)- $C_{1-6}$ alkyl, hydroxy- $C_{1-6}$ alkyl or cyano- $C_{1-6}$ alkyl;  $R^5$  is hydrogen; Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen and  $C_{1-3}$ alkyl, individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

5. The pyrrolotriazine derivative substituted with a carbamoyl group according to claim 1 represented by the following formula [III]:



(wherein  $R^1$ ,  $R^2$ ,  $R^3$  and Ar are as defined in claim 1), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

6. The pyrrolotriazine derivative substituted with a carbamoyl group according to claim 5 represented by the formula [III], wherein  $R^1$  is  $-OR^4$  or  $-NR^4R^5$ ;  $R^2$  is  $C_{1-6}$ alkyl;  $R^3$  is hydrogen or  $C_{1-6}$ alkyl;  $R^4$  and  $R^5$  are the same or different, and independently hydrogen,  $C_{1-9}$ alkyl,  $C_{3-7}$ cycloalkyl,  $C_{3-7}$ cycloalkyl- $C_{1-6}$ alkyl,  $di(C_{3-7}$ cycloalkyl)- $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy- $C_{1-6}$ alkyl,  $di(C_{1-6}$ alkoxy)- $C_{1-6}$ alkyl, hydroxy- $C_{1-6}$ alkyl or cyano- $C_{1-6}$ alkyl; Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy,  $C_{1-3}$ alkylthio, trifluoromethyl, trifluoromethoxy and  $-N(R^{20})R^{21}$  (wherein  $R^{20}$  and  $R^{21}$  are the same or different, and independently are hydrogen or  $C_{1-3}$ alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

7. The pyrrolotriazine derivative substituted with a carbamoyl group according to claim 5 represented by the formula [III], wherein  $R^1$  is  $-OR^4$  or  $-NR^4R^5$ ;  $R^2$  is  $C_{1-6}$ alkyl;  $R^3$  is hydrogen or  $C_{1-6}$ alkyl;  $R^4$  is  $C_{1-9}$ alkyl,  $C_{3-7}$ cycloalkyl,  $C_{3-7}$ cycloalkyl- $C_{1-6}$ alkyl, di( $C_{3-7}$ cycloalkyl)- $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy- $C_{1-6}$ alkyl, di( $C_{1-6}$ alkoxy)- $C_{1-6}$ alkyl, hydroxy- $C_{1-6}$ alkyl or cyano- $C_{1-6}$ alkyl;  $R^5$  is hydrogen; Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen and  $C_{1-3}$ alkyl, individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.
8. An antagonist for CRF receptors, comprising a pyrrolopyrimidine or pyrrolotriazine derivative substituted with a carbamoyl group, a pharmaceutically acceptable salt thereof or its hydrate according to any one of claims 1 to 7, as an active ingredient.
9. Use of a pyrrolopyrimidine or pyrrolotriazine derivative substituted with a carbamoyl group, a pharmaceutically acceptable salt thereof or its hydrate according to any one of claim 1 to 7, for the manufacture of a therapeutic agent as an antagonist for CRF receptors.